**IS 281- Joseph B. Cavallaro**

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**Brooklyn, NY 11214**

**Ms. M. Bender, Principal**

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class\_\_\_\_\_\_\_\_\_\_

Teacher\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_

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| ***Task: Number Sense***  ***“Secret Number***  ***6.NS.2 – 6NS.4:* Compute fluently with multi-digit numbers and find common factors and multiples.** | http://www.sageworks.com/blog/image.axd?picture=2012/2/numbers-graphic1.gif | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Math Rubric | | | | | | | Mathematical Operations | 4 | 3 | 2 | 1 | 0 | | Mathematical Errors | 4 | 3 | 2 | 1 | 0 | | Mathematical Explanation | 4 | 3 | 2 | 1 | 0 | | Mathematical Process | 4 | 3 | 2 | 1 | 0 | | Total Score | | | | | | |
| **Directions: Answer each question. Be sure to show your work and explain the process you used to find your answer.** | | |

**Samantha has a secret number. Read her clues and then answer the questions that follow:**

**Samantha says, “Clue 1: My secret number is a factor of 60”.**

1. Can you tell what Samantha’s secret number is? Explain your reasoning.
2. Daniel says that Samantha’s number must also be a factor of 120. Do you agree or disagree with Daniel? Explain your reasoning.
3. Max says that Samantha’s number must also be a factor of 15. Do you agree or disagree with Max? Explain your reasoning.
4. What is the smallest Samantha’s number could be? Explain.
5. What is the largest Samantha’s number could be? Explain.

**Suppose for Samantha’s second clue she says, “Clue 2: My number is prime”.**

1. Can the class guess her number and be certain? Explain.

**Suppose for Samantha’s third clue she says, “Clue 3: 15 is a multiple of my secret number”.**

1. Now can you tell what her number is? Explain.

**Suppose for Samantha’s fourth clue she says, “Clue 4: My secret number is a factor of 20”.**

1. What is Samantha’s secret number?
2. Your secret number is 36. Write a series of interesting clues using factors, multiples, and other number properties needed for somebody else to identify your number. Be sure to include at least 5 clues.